# **BREATHITT COUNTY**

# (Breathitt County Water Service Area Map)

- Estimated 1999 population of 15,600--33% on public water
- Estimated 2020 population of 16,800--71% on public water
- 57 miles of water lines, with plans for 245 additional miles
- Estimated funding needs for public water 2000-2005--\$10,000,000
- Estimated funding needs for public water 2006-2020--\$22,655,000

Breathitt County had an estimated population of 15,563 (5,938 households) in 1999 with a projected population of 16,800 (7,200 households) in 2020. Public water is provided to 4,800 people, or about 1/3 of the county's residents. In areas of the county not served by public water, about 95 percent of the households rely on private domestic wells and the remaining households rely on other sources. About 2,720 households will be added to public water service through new line extensions in 2000-2020.

Before a significant number of rural Breathitt Countians can have access to potable water, several issues must be addressed. Problems with the existing plant prevent it from treating the design capacity of 1.5 million gpd. An upgrade to this plant, or possibly a new plant on the Middle Fork of the Kentucky River around the intersection of Hwy 315 and Hwy 30 would be an almost immediate need. Breathitt County could also be well served by a regional water plant located on Buckhorn Lake. There have also been a couple of high velocity wells located within the county. One well is near Van Cleve and one along Hwy 52 in the eastern section of the county. Regardless of the method, Breathitt County will need both increased plant capacity and another source of water in addition to the North Fork in order to serve the needs of the entire county.

Breathitt County is in the process of forming a county water and sewer district. The owners in the project listing in this report will be listed as the Jackson Municipal Water Works. However, should the new county district be established, they will be the owners of the majority of the projects. Also, the City of Buckhorn would better serve about 50 customers in the southwestern portion of the county.

# WATER SERVICE AREAS BREATHITT COUNTY Kentucky

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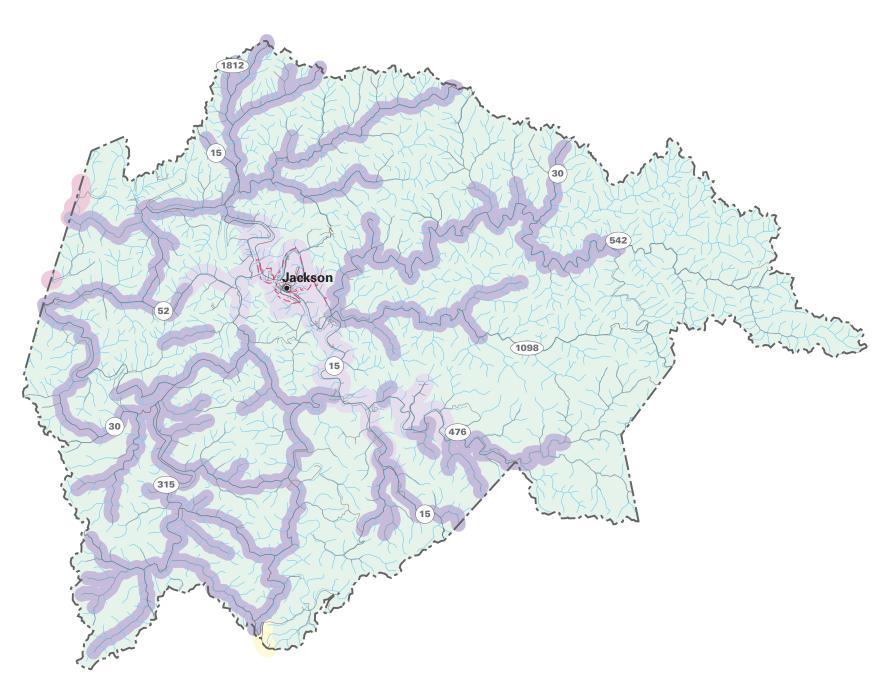








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#### **WATER SERVICE STATUS BY OWNER**



# Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New		Rehab	Source	Treatment	Tanks/	Total
		Customers					Pumps	
	Miles	Number	Cost in \$1000	in \$1000				
BREATHITT								,
Jackson Municipal Water	52.1	793	2,900	500		5,700	900	10,000
Total	52.1	793	2,900	500		5,700	900	10,000

# Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New		Rehab	Source	Treatment	Tanks/	Total
		Customers					Pumps	
	Miles	Number	Cost in \$1000	in \$1000				
BREATHITT								,
Jackson Municipal Water	191.8	1,927	9,855		5,000	6,000	1,800	22,655
Total	191.8	1,927	9,855		5,000	6,000	1,800	22,655

## **PUBLIC WATER SYSTEMS**

Breathitt County is served by 8 public or semi-public water systems: 1 municipal water system--Jackson Municipal Water--2 private community systems, and 5 non-community systems.

## **JACKSON MUNICIPAL WATER WORKS**

PWSID:	0130208
System Type:	COMMUNITY
Owner Type:	MUNICIPAL
Surface Source:NORTH FORK OF	KENTUCKY RIVER
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):	
Percent Daily Average Production:	
Total Tank Storage Capacity (gallons):	850,000.00
Total Service Connections:	
Number of Employees:	14.00
Treatment Operator Class:	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:	
O/M costs 1997:	
O/M costs per Service Connection:	
Net Revenue 1997:	
Total Water Produced 1997 (gallons):	Not available
Water Sold 1997 (gallons):	Not available
Unaccounted-for Water 1997 (%):	Not available

The Jackson Municipal Water Works draws its water from the North Fork of the Kentucky River. The system currently serves 1,751 households. Plant capacity is 1.5 million gpd, with a daily production of 800,000 gallons. Current storage capacity is 850,000 gallons. Rates are

\$14.32 for the first 2000 gallons within the city, and outside the city \$16.32 for the first 2000 gallon. The Water Works employs 14 full time people.

#### OTHER SYSTEMS

### **SHOUSE'S MOBILE HOME PARK #2**

Shouse's Mobile Home Park #2 is located in Breathitt County. The system serves a population of 35 and has 10 service connections. The private, community system water source is wells.

#### MT. CARMEL HIGH/BOARDING SCHOOL

Mt. Carmel High/Boarding School is located in Breathitt County. The system serves a population of 150 and has 1 service connection. The private, community system has treatment capacity of 10,000 gallons per day and the water source is wells.

## **OAKDALE CHRISTIAN HIGH SCHOOL**

Oakdale Christian High School is located in Breathitt County. The system serves a population of 60 and has 13 service connections. The local, non-transient, non-community system has treatment capacity of 250 gallons per day and the water source is wells.

#### **ROUSSEAU ELEMENTARY SCHOOL**

Rousseau Elementary School is located in Breathitt County. The system serves a population of 200 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 15,000 gallons per day and the water source is wells.

## **CAMP LEWIS**

Camp Lewis is located in Breathitt County. The system serves a population of 40 and has 1 service connection. The private, transient, non-community system has treatment capacity of 1,500 gallons per day and the water source is wells.

#### **KENTUCKY MOUNTAIN BIBLE COLLEGE**

Kentucky Mountain Bible College is located in Breathitt County. The system serves a population of 86 and has 14 service connections. The private, non-transient, non-

community system has treatment capacity of 12,000 gallons per day. The water source is surface water from Middle Fork of the Kentucky River.

#### **HIGHLAND TURNER ELEMENTARY SCHOOL**

Highland Turner Elementary School is located in Breathitt County. The system serves a population of 347 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 25,000 gallons per day and the water source is wells.

#### PRIVATE DOMESTIC SYSTEMS

About 10,250 people in Breathitt County rely on private domestic water supplies: nearly all on water wells.

Most wells drilled in valley bottoms are adequate for a domestic water supply. Fewer than half the wells drilled on hillsides are adequate for a modern supply and wells on hilltops yield smaller quantities of water. In the eastern quarter of the county ground water is slightly more plentiful with the possibility of large enough yields in wells 200 feet or deeper for small municipal or industrial supplies.

Most of the water obtained from drilled wells is extremely hard and contains noticeable amounts of iron. Salty water may be found from 50 to several hundred feet below the level of the principal valley bottoms.

A few springs supply sufficient quantities of water for domestic use. Almost all springs yield less than 5 gallons per minute.